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10/526,931	03/08/2005	Richard Crumbach	266815US2PCT	7572
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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER				
ABOAGYE, MICHAEL				
ART UNIT		PAPER NUMBER		
1793				
NOTIFICATION DATE		DELIVERY MODE		
05/15/2008		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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# Office Action Summary

**Application No.**

10/526,931

**Applicant(s)**

CRUMBACH ET AL.

**Examiner**

MICHAEL ABOAGYE

**Art Unit**

1793

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 February 2008.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 11-20 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 11-20 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 03/08/2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/5508)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. In view of the Appeal brief filed on March 26, 2007, PROSECUTION IS HEREBY REOPENED. As set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid. A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 16-18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter

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which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 16 recites the limitation "a multilayer system transparent to visible light". There is no support for said limitation in the specification, because on page 6, beginning of line 25, applicant refers to said multilayer system to be made of metal. It is noted that a metal layer could not possibly be transparent to visible light.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 16-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 16 recites the limitation "a multilayer system transparent to visible light". On page 6, beginning of line 25, applicant refers to said multilayer system to be made of metal. It is unclear as how said limitation corresponds to the disclosed invention because a metal layer could not possibly be transparent to visible light.

### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 11-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Cooke (US Patent No. 3,895,218).

Regarding claim 11, Cooke teaches transparent pane comprising:  
at least one electro-conducting, non-transparent contact surface (referred by Cooke as a metallized aluminum coating, see abstract and column 1, lines 53-61 and claims 1 and 9) placed on a surface of the pane (10, figure 2), to connect it by soldering to a connection piece (lead wires, abstract), wherein, in a region of the soldering location, the contact surface has at least one cutout via (see, the opening 22, figures 2 and 3 and column 3, lines 20-27 and claims 1 and 9) which a soldering filler metal is visible through the pane after the connection piece has been soldered to the contact surface.

Regarding claim 12, Cooke teaches a plural contact surfaces on the surface of the pane (see, the terminal areas 18 and 20 of the grids 16 and silver terminals 12 and 14, all located on the surface of the pane 10). Cooke also teaches a plurality of openings or cutouts (see, the openings, 22 and 24, figure 2).

Regarding claims 13, 14 and 15, Cooke applying or spreading solder to form a layer and soldering the wire leads to the silver terminal or contact through the openings or cutouts (see, figure 2, abstract and column 3, line 55-column 4, line 2).

8. Claims 11-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Karla et al. (US Patent No. 4453669).

Regarding claim 11, Karla et al. teaches a transparent pane comprising:

at least one electro-conducting, non-transparent contact surface (conductor 3, see abstract and column 5, lines 5-47) placed on a surface of the pane (1, figure 3), to connect it by soldering to a connection piece (connecting element 11, figure 3, abstract and column 3, lines 5-47), wherein, in a region of the soldering location, the contact surface has at least one cutout via (see, the opening 13 and 16, figures 3, abstract and column 3, lines 5-47) which a soldering filler metal is visible through the pane after the connection piece has been soldered to the contact surface. (Notes, Karla et al. teaches soldering the connecting element 14 to the power conductor 3 in a location within the window, column 3, lines 27-312).

Regarding claim 12, Karla et al. teaches a plurality of contact surfaces on the surface of the pane (see, the plurality of contact points 7 between the heating conductors 2 and the power conductors 3).

Regarding claims 13, 14 and 15, Karla et al. teaches applying or spreading solder to form a layer and soldering the connecting element 14 to the power conductor in the a location within the window, column 5, lines 27-35).

Regarding claim 19, Karla et al. teaches incorporated as a rigid pane in a composite glazing panel, at least the contact surface and the soldering location both being located on an inside of the composite glazing panel ( see, column 3, lines 36-43).

### ***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cooke (US Patent No. 3,895,218) as applied to claim 11 above and further in view of Sauer et al. (US Patent No. 5299726).

Cooke teaches an electrical heating pane, but does not expressly teach a multilayer system transparent to visible light between the pane and the contact surface, a composite glazing panel, and a system for use as an antenna as set forth in claims 16-20.

Sauer teaches a transparent pane (column 3, lines 62-68) comprising: at least one electro-conducting (see, copper strip "5" figure 1; abstract, column 1, line 64-column 2, line 2; column 3, lines 40-45) non-transparent contact surface placed on a surface of the pane (opaque enamel, see column 2, lines 50-52), to connect it by soldering to copper strips i.e. connection piece (column 3, lines 39-45).

Sauer teaches solder filler metal or brazing alloy ("4", figure 1) spread over contact surfaces (column 3, lines 36-45).

Sauer teaches said connection piece ("copper strips "5", figure 1) providing deposits of soldering filler metal that are present in a form of droplets (spot soldered) or of a thin layer to solder the connecting piece (column 3, lines 42-47).

Sauer teaches a multilayer system transparent to visible light applied between the glass sheets ("10 and 11", figure 2) and at least one electrically conducting layer ("13", figure 2) connected to the contact surface (column 3, lines 63-68).

Sauer teaches using said multilayer system as a surface heater and as an antenna, which has an electrical contact (column 3, lines 1-9).

Sauer further teaches a system wherein at least the contact surface and the soldering location both being located on an inside of the composite glazing panel (column 1, lines 6-11; column 3, lines 20-22 and figure 2), and an opaque coating that covers the contact surface and optically masks the contact surface (column 2, lines 50-55).

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to modify the invention of Cooke to use multiple layer system as taught by Sauer which would have meant a mere substitution of a single layered system with a multiple layer system which lend it self fro multiple applications such as antenna glazings and solar cells (Sauer, column 3, lines 1-10).

11. Claims 16-18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karla et al. (US Patent No. 4453669) as applied to claim 11 above and further in view of Sauer et al. (US Patent No. 5299726).

Karla et al. teaches an electrical heating pane, but does not expressly teach a multilayer system transparent to visible light between the pane and the contact surface and a system for use as an antenna as set forth in claims 16-18 and 20.

Sauer teaches a transparent pane (column 3, lines 62-68) comprising: at least one electro-conducting (see, copper strip "5" figure 1; abstract, column 1, line 64-column 2, line 2; column 3, lines 40-45) non-transparent contact surface placed on a



surface of the pane (opaque enamel, see column 2, lines 50-52), to connect it by soldering to copper strips i.e. connection piece (column 3, lines 39-45).

Sauer teaches solder filler metal or brazing alloy ("4", figure 1) spread over contact surfaces (column 3, lines 36-45).

Sauer teaches said connection piece ("copper strips "5", figure 1) providing deposits of soldering filler metal that are present in a form of droplets (spot soldered) or of a thin layer to solder the connecting piece (column 3, lines 42-47).

Sauer teaches a multilayer system transparent to visible light applied between the glass sheets ("10 and 11", figure 2) and at least one electrically conducting layer ("13", figure 2) connected to the contact surface (column 3, lines 63-68).

Sauer teaches using said multilayer system as a surface heater and as an antenna, which has an electrical contact (column 3, lines 1-9).

Sauer further teaches a system wherein at least the contact surface and the soldering location both being located on an inside of the composite glazing panel (column 1, lines 6-11; column 3, lines 20-22 and figure 2), and an opaque coating that covers the contact surface and optically masks the contact surface (column 2, lines 50-55). It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to modify the invention of Karla et al. to use multiple layer system as taught by Sauer which would have meant a mere substitution of a single layered system with a multiple layer system which lend it self fro multiple applications such as antenna glazings and solar cells (Sauer, column 3, lines 1-10).

***Response to Arguments***

12. Applicant's arguments with respect to claims 11-20 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sauer (US 5760744), Paulus et al. (US 5898407), Braun et al. (US 5534879), Gold et al. (US 4997396) and Schafer et al. (US 3864545) are also cited in PT-892.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL ABOAGYE whose telephone number is (571)272-8165. The examiner can normally be reached on Mon - Fri 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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